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AUTHOR Coles, James S.
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ABSTRACT

Variable junior high school schedules were developed to inject variety and expanded course offerings in the traditional daily schedule. This report collects tables, figures, and diagrams to explain the Racine, Wisconsin, junior high school variable scheduling plan. Sample student schedules, programs of studies, the rotation cycle, and comparisons with traditional scheduling are included. (DW)

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UNIFIED SCHOOL DISTRICT No. 1 - RACINE COUNTY

nassp

VARIABLE SCHEDULING

by

James S. Coles

February 1975

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FORWARD

The schedule described in this packet was developed to give a traditional program of studies and its daily schedule a "new look". This "new look" included a great degree of daily variety. In addition, it provided the opportunity for students to experience one additional course, but still remain within the same number of daily class periods.

If you would like more information, feel free to contact any of the Racine Junior High School principals listed below.

Mr. Richard Anderson
Mitchell Junior High School
2701 Drexel Avenue
Racine, Wisconsin 53403

Mr. Jim Coles
Starbuck Junior High School
1516 Ohio Street
Racine, Wisconsin 53405

Mr. Theodore Jacobson
Gilmore Junior High School
2201 High Street
Racine, Wisconsin 53404

Mr. Charles Kent
Washington Junior High School
914 St. Patrick Street
Racine, Wisconsin 53402

Mr. Glenn Kirchner
Gifford Junior High School
8332 Northwestern Avenue
Racine, Wisconsin 53406

Mr. Robert McMillen
Jerstad-Agerholm Junior High School
3601 LaSalle Street
Racine, Wisconsin 53402

Mr. Robert Zold
McKinley Junior High School
2340 Mohr Avenue
Racine, Wisconsin 53405

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SEVENTH GRADE PROGRAM OF STUDIES

Required of all seventh graders.

- English
- Social Studies
- Mathematics

These classes meet daily for the entire year.

- Phy Ed/Health
- Science

These classes meet 3 times in 4 days for the entire year.

Students choose 2 of these 4.

1. World of Construction
2. Home Economics
3. Instrumental Music
4. Seventh Survey (Foreign language, 20 wks; Art, 10 wks; Music, 10 wks)

These classes meet 3 times in 4 days for the entire year.

Figure 1

The Four Day Cycle

The schedule will operate off of a four day cycle.

Day of the Week:	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	·	·	·	·	·
Day of the Cycle:	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	·	·	·	·	·

Figure 2

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Period	JOE A	JOE B	JOE C	JOE D	MARY A	MARY B	MARY C	MARY D	GREG A	GREG B	GREG C	GREG D	HELEN A	HELEN B	HELEN C	HELEN D	HARVEY A	HARVEY B	HARVEY C	HARVEY D
1	M	E	SS	M	SS	M	E	SS	E	SS	M	E	1	1	1	4	1	1	1	4
2	SS	M	E	SS	E	SS	M	E	M	E	SS	M	2	2	4	2	2	2	4	2
3	L_1	L_1	L_1	L_1	M	E	SS	M	SS	M	E	SS	3	4	3	3	3	4	3	3
	E	SS	M	E	L^2	L^2	L^2	L^2												
					M	E	SS	M	L^3	L^3	L^3	L^3								
4	1	1	1	4	1	1	1	4	1	1	1	4	M	E	SS	M	M	E	SS	M
													L^4	L^4	L^4	L^4	L^5	L^5	L^5	L^5
													M	E	SS	M				
5	2	2	4	2	2	2	4	2	2	2	4	2	SS	M	E	SS	SS	M	E	SS
6	3	4	3	3	3	4	3	3	3	4	3	3	E	SS	M	E	E	SS	M	E

IT IS NOT NECESSARY TO USE FIVE LUNCH PERIODS. USE ONLY THE NUMBER OF DIFFERENT SECTIONS NEEDED TO ACCOMMODATE YOUR SITUATION.

Figrure 3

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Using two specific student schedules including the courses selected, the following diagram illustrates how a seventh grader's daily schedule might look:

1. [illegible]ch
2. English
3. Social Studies
4. Science
5. Physical Education
6. World of Construction
7. Art

	A	B	C	D
1	M	SS	E	M
2	E	M	SS	E
3	SS	E	M	SS
	L U N C H			
4	SS	E	M	SS
	Sc	Sc	Sc	Art
5	PE	PE	Art	PE
6	W of Con	Art	W of Con	W of Con

Figure 4

1. Art
2. Physical Education
3. Band
4. Science
5. Math
6. English
7. Social Studies

	A	B	C	D
1	Art	Art	Art	Sc
2	PE	PE	Sc	PE
3	Bnd	Sc	Bnd	Bnd
	L U N C H			
4	M	SS	E	M
5	E	M	SS	E
6	SS	E	M	SS

Figure 5

Student Schedule Label

Each student gets two copies of the label...one for a notebook and one for the locker door. The label below is for the program shown on the left, above.

Kelly, Stuart								
Period & Day				Room	Course & Title	Sem	Inst	Se
1A	2B	3C	1D	217	Math	3	041	4
2A	3B	1C	2D	202	English	3	015	8
3A	1B	2C	3D	202	Social Studies	3	015	7
4A	4B	4C		219	Science	3	121	2
5A	5B		5D	Gym	Phy Ed/Health	3	063	6
6A		6C	6D	104	World of Construction	3	093	3
	6B	5C	4D	100	Art	1	112	1
				Cafe	Lunch 11:02			

Figure 6

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Teachers - In order to implement the students program of studies, teachers would fall into two distinct groups as far as their personal schedules:

Group 1: Those teachers who would be teaching English, social studies and math...those classes that meet daily in the student's schedule...would each have five separate classes. These classes would meet daily and at the end of four days, this would mean the teachers would have had twenty class contacts. As teachers working in this group would have fixed schedules for the sake of simplification, they will be referred to as "fixed teachers."

Group 2: This group includes all teachers except those who teach English, social studies, and mathematics. Each teacher in this group would be assigned six different classes. As these classes meet three times in four days, at the end of four days, this teacher would have had a total of eighteen class contacts. As this teacher would have a schedule that varies from day to day, they will be referred to as "variable teachers."

COMPARISON BETWEEN
FIXED & VARIABLE TEACHERS ASSIGNMENT

FIXED	VARIABLE
1. 50 minute periods	1. 50 minute periods
2. Meet every day	2. Meet 3 times in 4 days
3. Five groups	3. Six groups
4. Four-day cycle	4. Four-day cycle
a. 20 classes	a. 18 classes
b. 150 students (approx)	b. 180 students (approx)
c. 1,000 minute total (in 4 days)	c. 900 minute total (in 4 days)

Figure 7.

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TECHNICAL STEPS TO THE CONSTRUCTION OF THE MASTER SCHEDULE

As you look at a fixed-variable schedule the first time, it appears to be rather complex, however, don't be frightened. The procedure is not unlike traditional programming practices.

In view of this, a brief review of programming procedures is in order:

1. Determine students course choices
   - A. Elective Choice Sheets
   - B. Presentation on Courses
2. Tally student choices
3. Determine number of sections of each course
4. Determine staff needs
5. Make room assignments
6. Place offerings with limited sections in non-conflicting positions in the master schedule. There is no mixing of variable and fixed courses within the same half of the day for students, teachers, or rooms.
7. Place remaining offerings in balanced position on master schedule.

In developing your master schedule, several items must be emphasized:

1. Near perfect balance is required, i.e., one-half of the student body must be programmed into fixed classes in the first half of the day and the other one-half in the second half of the day. With specialized classes (single section), it is necessary to anticipate conflicts which will occur unless they are arranged to allow students to go from specialized section 1st half of the day-Fixed to a specialized section 2nd half-Variable or vice versa.
2. The schedule must be built on eight periods. The reason being that four variable classes are programmed for each student.
3. Variable teachers are assigned six classes.
4. Never assign duplicate periods in each half of the day for variable teachers, i.e., 123, 567; 234, 578; 524, 568; 134, 578. This creates inbalance in classes taught daily.

After your master schedule has been built on an eight period format, a simple conversion table can build student and/or teacher schedules.

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Figure 9 is a fixed teacher program on an eight period format.

Figure 10 is the conversation chart for the fixed program.

Figure 11 is the fixed teacher program on an ABCD Grid.

Figure 12 is a variable teacher program on an eight period format.

Figure 13 is the conversion chart for the variable program.

Figure 14 is a variable teacher program on an ABCD Grid.

If you have data processing capabilities, your students program can be constructed in the manner depicted in Figure 6.

There is some wisdom to getting this student program on an adhesive label. In our district, we request duplicate copies and require students to place one on the inside of the locker door.

The student day in Racine, is short - 8:45 a.m. to 2:50 p.m. However, instructional time is not short. We can provide six 50 minute periods of instruction plus a 30 minute lunch period in this block of time.

Time periods are shown on a diagram in the appendix.

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		FIXED		
1 =	1A	2B	3C	1D
2 =	2A	3B	1C	2D
3 =	3A	1B	2C	3D
5 =	4A	5B	6C	4D
6 =	5A	6B	4C	5D
7 =	6A	4B	5C	6D

Figure 10

1	MATH 1
2	MATH 2
3	MATH 3
4	
5	MATH 4
6	
7	MATH 5
8	

Figure 9

	A	B	C	D
1	MATH 1	MATH 3	MATH 2	MATH 1
2	MATH 2	MATH 1	MATH 3	MATH 2
3	MATH 3	MATH 2	MATH 1	MATH 3
4	MATH 4	MATH 5		MATH 4
5		MATH 4	MATH 5	
6	MATH 5		MATH 4	MATH 5

Figure 11

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1	PHY ED 1
2	PHY ED 2
3	PHY ED 3
4	
5	PHY ED 4
6	PHY ED 5
7	
8	PHY ED 6

Figure 12

VARIABLE

1 =	1A	1B	1C
2 =	2A	2B	2D
3 =	3A	3C	3D
4 =	3B	2C	1D
5 =	4A	4B	4C
6 =	5A	5B	5D
7 =	6A	5C	4D
8 =	6B	5C	4D

Figure 13

	A	B	C	D
1	PHY ED 1	PHY ED 1	PHY ED 1	
2	PHY ED 2	PHY ED 2		PHY ED 2
3	PHY ED 3		PHY ED 3	PHY ED 3
4	PHY ED 4	PHY ED 4	PHY ED 4	PHY ED 6
5	PHY ED 5	PHY ED 5	PHY ED 6	PHY ED 5
6		PHY ED 6		

Figure 14

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APPENDIX A

COMPARISON BETWEEN "OLD" SCHEDULE AND THE "VARIABLE" SCHEDULE

	M	T	W	T	F
1	E	E	E	E	E
2	PE	PE	PE	PE	PE
3	SS	SS	SS	SS	SS
	LUNCH STUDY HALL				
4	M	M	M	M	M
5	A	A	A	A	A
6	HE	HE	HE	HE	HE

Six courses. Every day of the week is identical. Every period of the day is identical.

	A	B	C	D
1	E	SS	M	E
2	M	E	SS	M
3	SS	M	E	SS
	LUNCH			
4	PE	PE	PE	A
5	HE	HE	A	HE
6	SC	A	SC	SC

The schedule permit a shortened school day, but the amount of daily class time is the same. Study hall is eliminated.

Seven courses. Classes on any given day depends on the day of the cycle.

COMPARISON BETWEEN OLD AND NEW TIME SCHEDULE

Old Schedule

Student Schedule

	8:30 - 8:45	Arrive
1 -	8:45 - 9:40	
2 -	9:44 - 10:33	
3 -	10:37 - 11:32	
	11:32 - 12:28	Lunch /Study Hall
4 -	12:36 - 1:28	
5 -	1:32 - 2:24	
6 -	2:28 - 3:20	

Teacher Schedule

	8:30	Arrive
	8:30 - 8:45	Hall Supervision
	8:45 - 3:20	Classes
	3:35	Leave

New Schedule

Student Schedule

	8:30 - 8:45	Arrive
1 -	8:45 - 9:40	
2 -	9:44 - 10:36	
3	10:40 - 11:32	
	11:32 - 12:06	Lunch 2
4	12:06 - 12:58	
5	1:02 - 1:54	
6	1:58 - 2:50	

Teacher Schedule

	8:00	Arrive
	8:00 - 8:30*	
	8:30 - 8:45	Hall Supervision
	8:45 - 2:50	Classes
	3:05	Leave

* TIME BEFORE STUDENTS ARRIVE

1. Faculty Meetings
2. Departmental Meetings
3. Team Planning
4. Personal Preparation
5. Student Related Activities

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APPENDIX B

CLASS AND PASSING TIME SCHEDULE

1	8:45 - 9:40
2	9:44 - 10:36

Lunch 1	Lunch 2	Lunch 3	Lunch 4
3 10:40 - 11:06	3 10:40	3 10:40	3 10:40
L-1 11:06 - 11:36	11:32	11:32	11:32
11:36 - 12:02	L-2 11:32 - 12:06	4 11:36 - 12:06	4 11:36
4 12:06	4 12:06	12:06 L-3 - 12:32	12:06
12:58	12:58	12:58	L-4 12:28 - 12:58

5	1:02 - 1:54
6	1:58 - 2:50

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APPENDIX C

PROGRAM OF STUDIES FOR RACINE JUNIOR HIGH SCHOOLS

Required

Grade 7		Grade 8		Grade 9	
Math	1	Math	1	Math	1
English	1	English	1	English	1
Social Studies	1	Social Studies	1	World History	1
Science	1	Science	1/2		
Phy Ed/Health	1	Phy Ed/Health	1	Phy Ed/Health	1
(Choose 2)		(Choose 2 1/2 units)		(Choose 3 units)	
Survey -		French	1	French	1
Foreign Lang	1/2	German	1	German	1
Art	1/4 } 1	Spanish	1	Spanish	1
Music	1/4	Vocal Music	1/2	Biology (selective)	1
Instrumental Music	1	Instru Music	1	General Science	1/2
Home Economics	1	Art I Drwg & Pntg	1/2	Sp & Drama	1/2
World of Const.	1	Art II Applied Art	1/2	Vocal Music	1
		Art III Cer & Sculpture	1/2	Art I	1/2
		Art IV Crafts & Jewel.	1/2	Art II	1/2
				Art III	1/2
				Art IV	1/2
		Business Survey	1/2	Business Survey	1/2
		Typing	1/2	Typing	1/2
		Foods	1/2	Foods	1/2
		Clothing	1/2	Clothing	1/2
		World of Mfg	1	World of Mfg	1
		Guitar	1/2	Mech Drwg	1/2
		Communications	1/2	Woods	1/2
				Power Mech	1/2
				Graphic Arts	1/2
				Guitar	1/2

Explanation: -A total of 7 units are required each year.
-1 unit indicates 40 weeks of study
-1/2 unit indicates 20 weeks of study